



Effectiveness of Social Science Learning on Socialization of Earthquake Disaster Potential and its Mitigation to Students of Junior High Schools in the City of Bandung

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Abstract: This study aims to analyze the level of effectiveness of social studies learning on the socialization of potential earthquake disasters in the Bandung City Region and its mitigation in Junior High School (SMP) students in Bandung City. The approach used in this study is a quantitative approach, while the method used is descriptive analysis with a survey type with a sample of 194 people determined by proportional random sampling from 3931 students who are in areas prone to earthquakes in the city of Bandung, contained in 14 public junior high schools. The instruments used are observation, questionnaires, and documentation studies. The data analysis technique used descriptive statistics and inferential statistics. Based on the results of the study, it was shown that the effectiveness of social studies learning on the socialization of potential earthquake disasters in the city of Bandung along with its mitigation to the students of public junior high schools in the city of Bandung showed a positive and significant correlation, which had a relationship level of 67.8% with a correlation coefficient value of 0.824 which is included in the category of very strong relationship. The social studies curriculum for junior high schools made a fairly high contribution to disaster education and disaster mitigation, which was 47.4% in the social studies curriculum for junior high schools based on Permendiknas no. 22 of 2006, and 69.2% of the social studies curriculum for junior high schools based on Permendikbud No. 24 of 2016.

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Introduction

Disaster is a systematic event and can threaten people's lives, caused by natural and non-natural factors, resulting in losses to the community (Maharani et al., 2021). It is further said that disasters can result in casualties, environmental damage, property and psychological losses (Adhitiya & Kurniawan, 2008). Therefore, identification of the characteristics and potential of disasters is very necessary knowledge, to reduce the risk of disaster. The importance of increasing understanding of disasters must be instilled, especially in children at an early age who still do not understand the things they should do when an unexpected disaster event occurs (Desfandi, 2014). In junior high schools, data was obtained that the disaster knowledge of teachers, principals and school boards was generally not well understood, reaching 70% of respondents who stated that they were few and did not understand disaster events (Maryani, 2009). The conditions mentioned above illustrate that not only junior high school (SMP) students do not have knowledge and understanding of various events and potential disasters, but many teachers, principals, and even school boards do not understand disaster events. Although based on data and information about public



knowledge about natural disasters in disaster mitigation is not yet available accurately, even though it is very necessary to prepare disaster prepared communities (Thene, 2016)

Socialization about potential disaster threats, especially earthquake disasters and their mitigation to junior high school students in the Bandung City area through learning relevant subjects is very important to be carried out immediately to build awareness, vigilance and preparedness to minimize the risk or consequences of disasters, if the earthquake event really occurs. The importance of schools as formal educational institutions through the learning process can play a role in disseminating information about potential disasters and providing knowledge and mitigation skills to students through the integration of Disaster Risk Management (DRR) in schools, both the curriculum and the school safety culture must be socialized (Dwiningrum, 2010). The level of knowledge and understanding of the disasters of the people of West Java is still low. Understanding, knowledge and skills about disaster mitigation need to be improved, one of which is in the school education environment by including disaster materials in the local content curriculum in disaster-prone areas (Maryani, 2012).

The school has a firm mandate to socialize the cultural values and norms of the nation and its country. That's why in schools takes place the process of education and learning. Through the educational process, children are introduced to the values and norms or culture of their society, nation, and country, so that they are expected to be able to understand, live, and practice them in their daily life. All of this is very beneficial for the development of the child's personality as an individual and at the same time as a citizen of society, nation, and state. Schools also provide a means for the formation of peer groups (Saptono, 2007). Schools have a role or responsibility in helping students to grow and develop. In this regard, schools should strive to create a conducive or conducive climate that can facilitate learners to achieve optimal development, including aspects of maturity in social, personal interactions, achieving a philosophy of life, and maturity in faith and devotion to God Almighty (Yusuf, 2011).

Following the launch of a campaign of a million schools and hospitals safe from disasters, the Safe Education Unit Program (SPAB) in Indonesia has experienced encouraging developments. Along with the policies and strategies related to this, there are also more institutions that have SPAB programs. Awareness of the importance of disaster-safe schools and madrasahs is also increasing (Disaster Resilient Education: Realizing Disaster Safe Education Units in Indonesia, 2017). Thus, it can be said that the activities of disaster education in schools are one of the effective, dynamic, and sustainable strategies in an effort to disseminate disaster education. Systematic, measurable and implemented efforts in improving the ability of school residents are expected to be able to reduce the impact of disaster risk in schools in particular and the community in general. Education to build a better present and future life from the past with various intellectual abilities, communication skills, social attitudes, care, and participation to build a better life for society and nation (*experimentalism and social reconstructivism*) (Kerangka Dasar Dan Struktur Kurikulum Sekolah Menengah Pertama/Madrasah Tsanawiyah, 2013).

The subjects that will be developed in this study, specifically related to the dissemination of information and knowledge about potential earthquake disasters along with mitigation are Social Sciences (IPS). Social studies as a scientific discipline contribute a lot to the formation of attitudes, knowledge and skills of students. Social Science (IPS) subjects have a role in the cultivation of basic value education, because they are needed to make relevant relationships for the needs of learners (Susanti et al., 2018). The purpose of social studies education is to introduce concepts related to community life and the environment;



have the basic ability to think logically, critically, curiously, in inquiry, and skillfully solve problems in people's lives; have a commitment and awareness of social and humanitarian values; and have the ability to communicate, cooperate, and compete in a plural society at the local, national, and global levels (Kementrian Pendidikan dan Kebudayaan, 2016).

Based on the explanation above, several problems can be identified related to the socialization of various potential threats of natural disasters, especially earthquake disasters and their mitigation to state junior high school students in the Bandung City Area, so it is hoped that through this study, the level of effectiveness of Social Science (IPS) learning can be known for the socialization of potential earthquake disasters in the Bandung City Area and its mitigation to junior high school students. The land in the city of Bandung. The goal is to encourage and train students to develop creative thinking based on the knowledge and skills they have to critically examine the situation and characteristics of the surrounding environment, especially those related to efforts to reduce disaster risks caused by earthquakes that threaten the Bandung City area. Therefore, this research is very important to be carried out in order to be able to plan an action after knowing the effectiveness of social studies learning on the socialization of potential earthquake disasters in the Bandung City Area and its mitigation to students of State Junior High Schools in the City of Bandung. When we find it difficult to determine when an earthquake comes, then the best effort is how we prepare ourselves if the earthquake really comes. That is a disaster mitigation effort, which is an effort to minimize the risk or consequences of disasters (Yulianto, 2016). In addition, it is also to improve the function of school education as a socialization media (Titin et al., 2014).

Research Method

This research was conducted using a quantitative approach, where the results will be denoted by mathematical symbols or numbers (Sugiyono, 2017). The method used in this study is a descriptive method with a survey type. This is because the descriptive research survey is intended to describe existing phenomena, which take place at this time or in the past, and are used to obtain data naturally (not made by researchers) but researchers as actors in their data collection (Arifin, 2020; Sukmadinata, 2010). The location in this study was carried out in the Bandung City area, especially in areas of Bandung City which are prone to potential earthquake disasters. Areas in the Bandung City area which are areas prone to earthquake disasters are the East Bandung and South Bandung areas (Fortuga, 2013).

The population in this study is students and teachers of social studies subjects at public junior high schools located in the city of Bandung, with the East and South Bandung areas as the top priority for population determination, coupled with the West Bandung, North Bandung and Central Bandung areas. The sampling technique used is simple *random sampling* with the determination of the amount based on the calculation of the formula from Yamane, (2008) in (Bungin, 2010), which is as follows:

$$n = \frac{N}{N \cdot d^2 + 1}$$

Information:

- n : Sample Size
- N : Population Size
- d : Precision Value (0,07, 93%)

The calculated that from the entire study population of 3931 students, and 73 social studies teachers, 194 students were submitted, and 54 social studies teachers. The instruments



used in this study were observations, questionnaires, and documentation studies. For questionnaires, it is of two kinds, one for learners, and one for teachers. The questionnaire for learners consisted of 24 statement items, and after being tested for validity it turned out that only 20 items were valid and used for research. As for the teacher, there are as many as 24 items as well, and all of them are valid. Data analysis techniques in quantitative research used descriptive statistics, and inferential statistics.

Results and Discussion

1) Learners' Knowledge of Disasters

a) Students' Knowledge about the potential of Diversity in the Bandung City Area

Students' knowledge about potential disasters in the Bandung City area is based on data from 194 students who were used as research samples, 98.5% stated that Bandung City is an area prone to disasters which include floods (37.6%), landslides (17.0%), earthquakes (14.9%), volcanoes (8.2%), and air pollution (20.6%). This is reinforced by the results of interviews with student respondents, who stated that the potential disasters they often encounter around the environment where they live are floods and air pollution. The students who stated that the city of Bandung is an area prone to landslides and earthquakes, it is also based on the disaster events they have felt even with a very rare intensity. Social studies is learning that is close to the real life of students, because the arachnidity of social studies learning is a theory or concept of how to foster social intelligence that is able to think critically, creatively, innovatively, with character and noble personality, be scientific in how to look at, analyze and study the real life it faces (Talitha et al., 2016).

b) Students' Knowledge about Earthquake Disaster Events in the Bandung City Area

The knowledge of students about earthquake events in the Bandung City area based on data processing shows that 92.78% of students felt earthquakes around their residences. Of the 92.78%, a large part (70.10 %) was felt by the students themselves, some students learned of the earthquake event from the announcement of the authorized officer (2.06 %), danger warnings / sirens (2.58 %), from parents or teachers at school (8.76 %), and the panic of those around them (13.40 %). The socialization process will not be separated from the role of socialization agents, namely family, peer groups, schools, and mass media (Dwikristanti, 2016).

c) Social Studies Subjects as a Source of knowledge Students about Potential Disasters

One of the factors that cause the high level of knowledge and understanding of students towards disaster events, including the potential for earthquake disasters in the Bandung City area, one of which is learning about disasters in schools through social studies subjects. Based on the data, it is known that most (99.0%) of the participants indicate have received information about disasters in social studies lessons at school. Of the 99.0% of this number, 60.3% have received information about the potential threat of earthquake disasters in the Bandung City area in social studies learning, while 39.7% have never received information. This shows that most social studies teachers have carried out social studies learning with a contextual approach, namely bringing the concepts learned closer to the conditions of the environment around students. *Contextual teaching and learning* is a learning concept that helps teachers relate the material they teach to the real conditions of students and encourages students to make connections between the knowledge they have and its application in their daily lives. This learning model makes learning outcomes more meaningful for students, so that educational goals can be achieved (Budiarti & Erni, 2018).



In addition to social studies subjects that can add insight into students' knowledge related to the potential threat of earthquake disasters in the Bandung City area, based on data processing, it is determined that 60.8% of students obtain information through lighting and reading from the mass media, 14% through writing on banners and notice boards, and 7.7% through leaflets that were deliberately circulated, and 18% of students had not obtained any information at all about the potential threat of earthquake disasters in the Bandung City area. This gives an idea that most of the students of public junior high schools in the city of Bandung have known and understood about disaster events, including knowing about the existence of the potential threat of earthquake disasters in the Bandung City area both through social studies learning that they get at school, as well as through other information media in the form of print and electronic media. Mass media is one of the socialization agents (Dwikristanti, 2016).

d) Sources of Learners' Knowledge about Disasters

Disaster knowledge is obtained by students not only from the educational environment through the learning process, but knowledge about disasters can also be obtained by students from the community environment around where they live, both the family environment, religious education environment, and playmate environment. Based on the data processing, it can be seen that teachers in schools make a considerable contribution (69.6 %) to students' knowledge and understanding of disaster events, while from parents 28.4%, from teachers reviewing 1.5%. Learning is something that learners do, not made by learners "*learning is something student do, not something that is done to student*". In doing something, students are always assisted and directed by educators so that what they do becomes directed and in accordance with the goals to be achieved (Supardan, 2015).

e) How Teachers Provide Disaster Education to Students

The role of the teacher as a facilitator in the learning process plays a very important role in conveying or transferring knowledge to their students, so that they are able to understand the material presented. Based on the processing of data, it can be seen that as many as 77.3% of teachers delivered disaster material sourced from textbooks, 18.6% delivered disaster material by showing films about disasters, and as many as 2.6% of teachers delivered disaster material by discussing news from newspapers. Based on interviews conducted with students, they are more interested and will understand better if material about disasters is studied through audio-visual media, such as showing films about disasters. A learning model is a plan or a pattern that is used as a guide in planning learning in class or learning in tutorials and to determine learning tools including books, movies, computers, curriculum, and others. Each learning model leads us to design learning to help learners in such a way that learning objectives are achieved (Rusman, 2013).

f) Social Studies Lessons on Learners' Understanding

No less important factors play a role in increasing students' knowledge and understanding of disasters, in addition to the way teachers deliver material about disasters, students' responses and responses to social studies subjects can be used as a reference for whether the subject matter contained in the social studies subject can be accepted by students or not, including material on disasters and their mitigation. Based on the data processing, it can be seen that 51.5% of students think that social studies lessons are fun. The answer will affect the level of understanding students to the social studies subject matter presented by the teacher, including material on disasters and their mitigation. However, it is worth being aware of, there are 46.4% of students stating that social studies subjects are ordinary subjects. It is a challenge for teachers to strive to make social studies subjects a more enjoyable subject, by innovating in carrying out the learning process more interesting, and making



students understand about the subject matter presented, including material about disasters. The learning climate developed by teachers has a significant influence on the success and passion of learning of learners. The quality and success of learning is greatly influenced by the teacher's ability and the teacher's accuracy in choosing and using learning methods. Thus the selection of learning models and methods that are in accordance with the curriculum objectives and the potential of students is a basic ability and skill that must be possessed by the teacher (Solihatin et al., 2011).

2. Disaster Learning and Its Mitigation in Schools

a) The Need for Disaster Materials and Their Mitigation to be Taught to Students in Schools

How important the content of disaster material is taught by the teacher to students in schools will not be separated from the teacher's understanding of disaster events that will have an impact on the environment and the human rights around him. The data showed that 79.6% of go The Need for Disaster Materials and Their Mitigation to be Taught to Students in Schoolsru stated that catastrophic events would have more negative impacts on human life, and 20.4 % expressed doubt. This will be an encouragement for teachers to teach material about disasters along with mitigation to students to reduce the risk of property loss and casualties during a disaster event. Material with nuances of Geography are all very suitable for insertion of disaster mitigation materials, even through causal geography and disaster indicators and mitigation can be provided thoroughly both natural disasters in the form of volcanoes, earthquakes, tsunamis, hurricanes or storms, landslides and other natural disasters, as well as social disasters (Maryani, 2010).

The importance of disaster knowledge and its mitigation is taught to students in schools based on data processing, it is known that 92.6% of teachers stated that learning about disasters needs to be taught to students at school and 7.4% stated that disaster is sufficient as general knowledge. In addition, it is also known that 85.2% of teachers stated that knowledge and understanding of disaster mitigation needs to be learned in schools, and 14.8% is quite limited to general knowledge. Thus, teachers in schools should manifest themselves in concrete actions by teaching material about disasters and their mitigation, considering that Indonesia is a country with a high potential for disaster hazards. Potential disaster threats can be caused by natural disasters or man-made disasters. Judging from the existing disaster potential, Indonesia is a country with a very high potential for danger (hazard potency). Some of these potentials include earthquakes, tsunamis, floods, volcanic eruptions, landslides, storms, forest and land fires, volcanic eruptions (General Guidelines for Disaster Mitigation, 2006). Disaster mitigation is a series of efforts to reduce disaster risk, both through physical development and awareness and improvement of the ability to face disaster threats. (Government Regulation No. 21 of 2008, concerning the implementation of Countermeasuresdisaster, on page 2 (two) of Article 1 (one) point 6).

Social studies teachers at the junior high school (SMP) level in the city of Bandung based on data processing are known to most (88.9%) have taught disaster materials to students at school and 11.1% have never taught. The number of teachers who have taught disaster materials to students in schools is expected to increase students' understanding and knowledge of disaster events accompanied by students' skills in an effort to reduce risks from disaster impacts. The results of research by Rahayu et al, (2020) show that students' knowledge and attitudes about disaster mitigation are very influential. This means that if students really know and understand the disaster mitigation learning provided by the teacher,



it will shape the attitudes of students well. In conclusion, disaster mitigation is actually able to form the knowledge and positive attitudes of students

b. Content of Disaster Material and Its Mitigation in Social Studies Learning

Disaster mitigation education in schools to students certainly does not have to stand alone as a subject but can be integrated with subjects that already exist in schools, one of which is integrated into social studies subjects. Based on the data processing, it can be seen that as many as 68.5% of teachers stated that they need to insert disaster material and its mitigation in social studies subjects, and there were even as many as 29.6% of teachers who stated that it was very necessary. Mitigation of disasters is part of the skills to maintain the survival of the learners. Learners are the ones who are the fastest to transfer knowledge gained from school for their families and communities. Empowering children from an early age to understand disaster mitigation is the first step in building a disaster-aware community. So that when a disaster occurs, students, teachers, and the community are no longer confused, panicked, because they have understood how to reduce disaster risk. The right choice to instill disaster mitigation is needed to match the character and growth stage of students. Teachers as the key to implementing disaster mitigation activities play a very important role in involving students actively to build a student mindset (Widhi et al., 2015).

c. Socialization of Earthquake Disaster Potential in the Bandung City Area in Social Studies Learning

Related to the potential threat of earthquake disasters in the Bandung City area, the social studies subject is also a relevant subject used as a socialization media about the potential threat of earthquake disasters in the Bandung City area to students. Based on the data process, it is known that as many as 83.8% of teachers in social studies learning have delivered material on disasters related to the potential threat of earthquake disasters in the Bandung City area and as many as 16.7% of teachers who did not deliver. This condition shows that indirectly, socialization about the potential for earthquake disasters in the Bandung City area and education on mitigation skills in the form of providing cognitive knowledge to students has been carried out by teachers through social studies learning at school. Teachers' understanding of disasters is relatively quite good, judging from the aspects of sensitivity in responding and how to reflect on disasters, awareness to reduce disasters and avoidance actions carried out when disasters occur. The disaster knowledge approach is an important capital for disaster mitigation education relatively already owned by teachers (Dwiningrum, 2010). Socialization of the potential for earthquake disasters in the Bandung City area and its mitigation through social studies learning is very necessary so that students can respond quickly and proactively to disaster events when they are in school and around their residences.

d. Models, Methods, Media and Learning Evaluations to Teach Disaster Material and Disaster Mitigation in Social Studies Subjects

The implementation of the learning model that is considered the most appropriate use by social studies teachers to teach material about disasters and their mitigation, based on data processing shows that 88.9% of social studies teachers at the Junior High School level in the Bandung City area have applied an integrated learning model in defending material in social studies lessons including material on disasters and their mitigation, 7.4% used partial learning, and 3.7% used other learning. Integrated learning is basically intended as a learning activity by combining several subject matters in one theme presented at each meeting. This learning approach involves several fields of study to provide meaningful experiences to learners, because learners will understand the concepts learned through direct observation and relate them to other concepts (Bahar, 2013). Model integrated learning on the integration of disaster risk reduction materials in social studies subjects is very effective in increasing



disaster knowledge and disaster preparedness in junior high school students on the slopes of Merapi Volcano, Kemalang District, Klaten Regency (Pebriantika, 2019).

The use of social science (IPS) learning methods at the junior high school education level in the city of Bandung in the context of disasters and their mitigation applied by teachers in the learning process in schools is based on data processing, it is known that 68.5% of teachers apply *cooperative learning methods*, *problem solving*, discussions, simulations, and demonstrations to teach material about disasters and their mitigation. Only using *cooperative learning* 1.9%, using *problem solving* 11.1%, using discussion 11.1%, using simulation 5.6%, and using 1.9% demonstration. The use of a combination of *cooperative learning methods*, *problem solving*, discussion, simulation, and demonstration is considered very relevant and can be applied to teach disaster material and its mitigation at the Junior High School (SMP) level. Materials with geographical nuances are all very suitable for insertion of disaster material and its mitigation, even through causal geography and disaster indicators and mitigation can be provided thoroughly both natural disasters in the form of volcanoes, earthquakes, tsunamis, typhoons or storms, landslides and other natural disasters, as well as social disasters. The selection of learning methods is adjusted to the situation and conditions of students, as well as the characteristics of each indicator and competence to be achieved in each subject. In fact, there is not a single perfect method that best suits the purpose, the type of material and the learning process that exists (Maryani, 2010).

The use of learning media in the context of disasters and their mitigation applied by subject teachers, which is stated in the learning tool document, from the results of data processing, it is known that as many as 92.6% of teachers use film media, images, and maps to teach material about disasters and their mitigation, and 7.4% only use film media. The combination of films, images, and maps is considered relevant and effective for teaching mitigation materials at the Junior High School (SMP) level. Learning media that are considered effective are films, images and maps (Maryani, 2010).

The form of learning evaluation in the context of disasters and their mitigation applied by subject teachers, which is stated in the learning tool document, based on data processing is known as many as 72.2% of teachers use the form of test evaluation, portfolio, and *performance* to evaluate the results of the learning process that teaches material about disasters and their mitigation, using a portfolio of 22.2%, using a portfolio *performance* 3.7%, and using the test 1.9%. The combination of test evaluation forms, portfolios, and *performance* is considered very relevant to be applied to evaluate student learning outcomes for disaster materials and their mitigation at the Junior High School (SMP) level. Learning evaluation can be combined between tests, portfolios and *performance* (Maryani, 2010).

2. Test Research Hypotheses

a) Correlation Coefficient *Product Moment* of Person

Measuring the effectiveness of social studies learning on socialization of potential earthquake disasters in the Bandung City Area along with its mitigation in students using statistical tests with *pearson's Product Moment* correlation formula. Statistical data processing was carried out using the SPSS version 16 program applications, and from the measurement process obtained the results of the correlation and significance of each variable under study. The results of the measurement of the degree of correlation from the data of this study, are presented in the following table.

Table 1. Correlation of the Effectiveness of Social Studies Learning to Socialization of Disaster Potential

Earthquakes in the Bandung City Area along with Their Mitigation			
		Social Studies Learning	Disaster Awareness and Its Mitigation
Social Studies Learning	Pearson Correlation	1	.853**
	Sig. (2-tailed)		.000
	N	194	194
Disaster Awareness and Its Mitigation	Pearson Correlation	.853**	1
	Sig. (2-tailed)	.000	
	N	194	194

** . Correlation is significant at the 0.01 level (2-tailed).

Based on data from table, it can be seen that the correlation value between the effectiveness of social studies learning and the socialization of potential earthquake disasters in the city of Bandung and its mitigation is 0.853 with a significance level of 0.000. The significance value of 0.000 is less than 0.05 (0.000 < 0.05), it can be concluded that it was rejected, thus it can be said that there is a positive relationship between the effectiveness of social studies learning and the socialization of potential earthquake disasters in the city of Bandung and its mitigation in students of State Junior High Schools in the city of Bandung.

Furthermore, to determine the magnitude of the contribution of the effectiveness of social studies learning to the socialization of potential earthquake disasters in the city of Bandung and its mitigation is to calculate the coefficient of determination with the formula $cd = r^2 \times 100\%$. The coefficient of determination, which is the magnitude of the quadrant of the correlation value of 0.853, then the coefficient of determination = $r^2 = 0.853^2 = 0.728 \times 100\%$, obtained a number value of 72.8%. This shows that the variation in social studies learning contributes to the socialization of potential earthquake disasters in the city of Bandung and its mitigation in students of State Junior High Schools in the city of Bandung by 72.8%, the rest is determined by other variations.

To test whether the relationship applies to the entire population, the next step is to do the significance of the product moment correlation or the statistical test t (t test) using the formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

The results of the analysis of the calculation of the t test calculation using the help of SPSS software version 16, obtained the results in the following table:

Table 2. T Test Calculation Results

		Paired Samples Test					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	The Effectiveness of Social Studies Learning - Socialization of Earthquake Potential and Its Mitigation	3.778	5.165	.371	3.047	4.510	10.188	193	.000

The conclusion that can be drawn from the results of the t-test is then stated that t_{count} fall on the area of rejection H_0 , then it can be stated that the null hypothesis which states that there is no relationship between the effectiveness of social studies learning and the socialization of potential earthquake disasters in the city of Bandung and its mitigation



rejected, and the alternative hypothesis is accepted. So in conclusion, the correlation coefficient between the effectiveness of social studies learning and the socialization of potential earthquake disasters in the city of Bandung and its mitigation of 0.853 is significant, meaning that the coefficient can be generalized or can apply to a population where a sample of 194 students is taken.

Based on the results of the research that has been obtained, it can be said that there is a relationship between the effectiveness of social studies learning and the socialization of potential natural disasters. Effective learning is a process of change in a student which is manifested in the form of increasing the quality and quantity of behavior given, led, guided by someone (teacher) with the intention of developing the intellectual, emotional, and spiritual potential contained in students appropriately and affecting the thinking patterns and behavior of students in accordance with the learning objectives (Dawn, 2009). Learning is said to be effective when it can actively involve students in the learning process, and they can successfully achieve their learning goals (Slameto, 2010). Learning is said to be effective if the learning objectives that have been formulated are successful in order to be applied in learning. Effective learning can be achieved if it is able to provide new experiences, shape the competence of learners and lead them to the goals to be achieved optimally (Saefudin, 2015).

The selection and application of learning models that support the implementation of the effectiveness of social studies learning is very important. A learning model is a planning or a pattern that is used as a guide in planning learning in class or learning in tutorials and to determine learning tools including books, movies, computers, curriculum, and others (Rusman, 2016). Based on the results of research, the model applied to social studies learning is an integrated learning model. The integrated learning model is essentially a learning system that allows students both individually and in groups to actively seek, explore, and find concepts and principles holistically and authentically (Kartini, 2012). The method used to teach material about disasters and their mitigation is a combination of cooperative learning, problem solving, discussion, simulation, and demonstration. The cooperative learning model places students as part of a system of cooperation in achieving an optimal result in learning. This learning model departs from a fundamental assumption in people's lives, namely, "getting better together", or "achieving the best together" (Supardan, 2015). The learning method already reflects the use of learning methods that are considered appropriate to be applied to disaster learning and mitigation, namely by using *cooperative learning* and *problem solving* methods, although in its implementation they (teachers) still look dominant using varied lecture methods, discussions, questions and answers, and simulations. The application of evaluation in the form of tests, portfolios, and performance is considered relevant to evaluate the results of the learning process that teaches material about disasters and their mitigation.

The importance of schools as formal educational institutions through the learning process can play a role in disseminating information about potential disasters and providing knowledge and mitigation skills to students. Thus, disaster education activities in schools become one of the effective, dynamic, and sustainable strategies in an effort to disseminate disaster education.

Conclusion

The level of effectiveness of social studies learning on the socialization of potential earthquake disasters in the city of Bandung and its mitigation in students of State Junior High Schools in the City of Bandung shows a relationship level of 72.8% with a correlation coefficient value of 0.853 which is included in the very strong relationship category. This is inseparable from the social studies learning process designed and managed by social studies



subject teachers through the preparation of the Learning Implementation Plan (RPP) program. As many as 96.13% of teachers of social studies subjects have compiled in accordance with the preparation signs listed in Permendiknas No. 41 of 2007 concerning process standards for primary and secondary education units, which in the contains components of models, methods, media, and relevant forms of learning evaluation, including when teaching material related to the socialization of potential threats of earthquake natural disasters and their mitigation.

Concerning the use of relevant learning models, methods, media, and forms of learning evaluation in teaching material in social studies lessons, as many as 88.9% of social studies teachers have implemented an integrated learning model; as many as 68.5% of teachers apply *cooperative learning methods, problem solving*, discussions, simulations, and demonstrations; as many as 92.6% of teachers use media that are considered very relevant and effective, including to teach mitigation themes, namely film media, images, and maps; and it is known that as many as 72.2% of teachers master assessment techniques in the form of tests, portfolios, and *performance*. The level of effectiveness of social studies learning on the socialization of potential earthquake disasters in the city of Bandung and its mitigation to students of State Junior High Schools in the City of Bandung can be seen from the results of research that shows that as many as 99.0% of students have received learning about disasters; as many as 60.3% of students have received information about the potential threat of earthquake disasters in the Bandung City area; as many as 96% of junior high school students in the Bandung City area know how to save themselves from disaster events, because as many as 75% of students have received disaster mitigation education and training when they are in school through social studies subjects that discuss material related to disasters.

Recommendation

Recommendations that can be submitted based on the results of this study, are:

1) For Social Studies Teachers

- a) It is necessary to improve knowledge and skills regarding disaster mitigation through training or *refreshing* social studies teaching materials in order to continue the disaster-aware culture through continuous independent exercises;
- b) *Sharing* knowledge between fields of study and across curricula to maintain mitigation skills in an integrated manner; implementing an integrated learning model to improve disaster knowledge and disaster preparedness in students in facing earthquake disaster risk in the Bandung City area;
- c) Implementing disaster education and learning and mitigation is not limited to knowledge but is accompanied by simulations on how to save yourself from disaster events.

2) For the Principal

- a) It is necessary to make modules, teaching materials, and special guidebooks on disaster and mitigation materials or Disaster Risk Reduction (DRR) that are in accordance with local risk analysis (contextual) for both teachers and students,
- b) Have a typical disaster preparedness action plan tailored to the conditions of each school starting with the formulation of a disaster safe school learning module including the formulation of a disaster risk map in schools. This map will be a guide to formulating an action plan whose formulation involves all stakeholders in the school from the principal, teachers, parents, to students.



3. For Policymakers

a) City and District Education Offices

It is necessary to implement the Circular Letter (SE) of the Minister of National Education Number 70a/SE/MPN/2010 concerning mainstreaming of DRR in Schools in the form of:

- 1) Learning methods based on the integration of DRR in subjects,
- 2) The need for making media or learning tools based on DRR,
- 3) Disaster preparedness culture training for both teachers and learners,
- 4) Develop disaster education and its mitigation in schools with the assumption that schools have a strategic role in disaster mitigation policies that must mainstream the formation of disaster conscious behavior,
- 5) Conduct in-depth research through the study center of DRR Education in universities with educational backgrounds such as UPI and other universities that develop scientific insights about disasters such as ITB which since 1999 has developed research on the concept of disaster-safe schools to produce DRR products that are ready to be implemented or used as models such as curriculum models, syllabuses and lesson plans, learning models, facilities and infrastructure models, media models, and also DRR-based model teachers.

b) Bandung City Education Office

- 1) Integrate disaster awareness material in the existing subject, namely social studies, because at this time the local content subjects that were determined were Cultural Arts and Environmental Education,
- 2) Incorporating the formation of a Disaster Conscious Culture in extra-curricular activities,
- 3) Incorporating Disaster Conscious Culture into the Character Education Curriculum.

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